

QUARTERLY GRAIN REPORTStation Fishkum Refuge.Period May 1 to August 31, 1944

This report should cover all grain received, or disposed of, during the quarterly periods ending January 31, April 30, July 31, and October 30. Reports in duplicate, clipped to, but not bound as a part of, the quarterly narrative report, should reach the Regional Office by the 10th of the month following the close of the period covered by the report. The Regional Director, after approval, will forward the original to Washington.

Report all grain in bushels. For the purpose of this report the following approximate weights of grain shall be considered equivalent to a bushel: Corn (shelled)--55 lbs., Corn (ear)--70 lbs., Wheat--60 lbs., Barley--50 lbs., Rye--55 lbs., Oats--30 lbs., and Mixed--50 lbs. In computing volume of granaries, multiply the cubic contents (cu. ft.) by 0.8 bushels. Report all grain received during period from all sources, such as transfer, share cropping, or harvest from feed patches.

Variety	On Hand Beginning of Period	Received During Period	Grain Disposed of				On Hand End of Period	Proposed Use		
			Trans- ferred	Seeded	Fed	Total		Seed	Feed	Surplus
Corn										
Wheat	35						35		Feed	
Barley										
Rye										
Oats										
Mixed										

1. Indicate shipping or collection points Choteau, Montana2. Grain is stored at Service Building, Fishkum Refuge3. Remarks No grain received or disposed of this quarter.

Approved by:

Regional Director

Submitted by:

Leon C. Snyder

Refuge Manager

Signature and Title

Refuge Grain Report

Fishkum Refuge

Sept. 1 to December 31, 1944

wheat	35	None	none	none	none	35	Feed
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Choteau, Montana

Service Building, Fishkum Refuge.

Leon C Snyder Refuge Manager

HAYING AND GRAZING

Refuge Benton Lake Year 1944

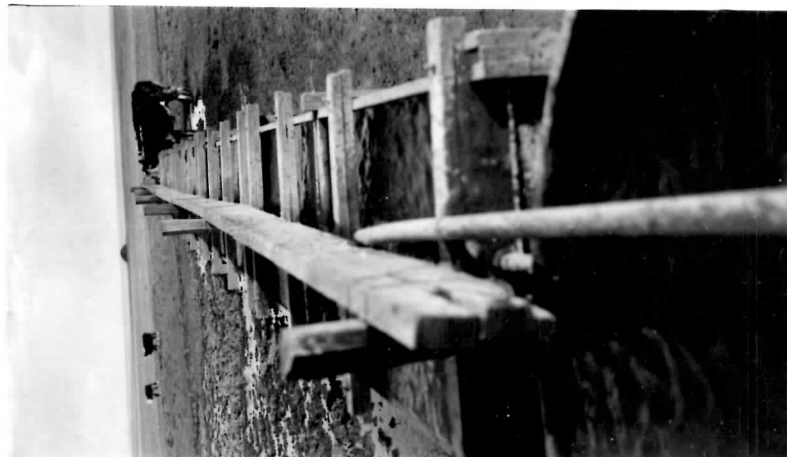
Permittee	Permit No.	Unit or Location	Actual Acreage Utilized	Animal Use Months	Tons of Hay Harvested	Period of Use From - To	Rate	Total Income	Remarks
Chris Hagnes	6947	5-0	250	100		5/1/44 5/31/45	.10 a	25.00	
Edwin J. Fink	11504	1-0	10420	45		7/1/44 7/25/44	.50	22.50	
R. R. Swan	11505	1-0	same	406		7/15/44 11/15/44	.50	203.00	
Arthur Havelstine	11506	1-0	same	247.5		7/18/44 11/25/44	.50	123.75	
Lloyd B Johnston	11507	1-0	same	126		7/11/44 11/25/44	.50	63.00	
Henry Suck	11508	1-0	same	225		7/11/44 11/25/44	.50	112.50	
John Hinkle	11509	1-0	same	540		7/11/44 11/25/44	.50	270.00	
Carl Hinderager	11510	1-0	same	150		7/11/44 10/10/44	.50	75.00	
O. M. Olson	11511	1-0	same	55.5		7/11/44 11/25/44	.50	27.75	
Chas. Hinderager	11512	1-0	same	360		7/11/44 11/25/44	.50	180.00	
Peter Feko	11513	3-0	500	168		7/15/44 7/15/45	.10 a	25.00	
Carl Hinderager	11525	4-0	147	90		5/1/44 5/31/44	.10 a	14.70	
John Hinkle	12937	1-0	10420	150		11/25/44 1/25/45	.50	50.00	
Arthur Havelstine	12938	1-0	same	150		11/25/44 1/25/44	.50	50.00	
Edwin J. Fink	11514	2-H 35H	40	42.41		7/15/44 3/31/45	1.00	42.41	down payment
Peter Feko	11515	11, 12, 13, 32	none	none		same	1.00	7.50	down payment
O. M. Olson	11516	14-H 35H	none	none		same	1.00	3.75	down payment
Chas Hinderager	11517	16-17-18-19-35-	250	125.18		same	1.00	125.18	
Chris Hagnes	11518	4-8-39 H	70	25.25		same	1.00	55.25	
John Hinkle	11519	20-22-23-37H	75	30.36		same	1.00	30.36	
Arthur Havelstine	11520	21-22-26-27-30-	100	40.46		same	1.00	40.46	
Henry Suck	11521	35-H 35H	75	30.36		same	1.00	30.36	
Verle Being	11522	1-3-7H	none	none		same	1.00	10.00	down payment
Elvin Love	11524	1-3-3H	none	none		same	1.00	7.50	down payment

Totals:

Acreage grazed 11,127 Animal use months 2,630 Total income Grazing 1,269.70Acreage cut for hay 610 Tons of hay cut 330.05 Total income Haying 356.80



R-10 E-1, 10/5/44, Benton Lake: Overall view of stock watering unit. 5 new wood tanks 2x4x14', and an A. B. Wisconsin air cooled engine and pump jack are new equipment owned and installed by the stock grazing permittees.



R-10 E-2, 10/5/44, Benton Lake: Top view of new watering tanks. Note the sturdy construction and the impossibility of cattle being pushed or bunted into the tanks. Also note how dry the ground is on the upper side of the tanks.



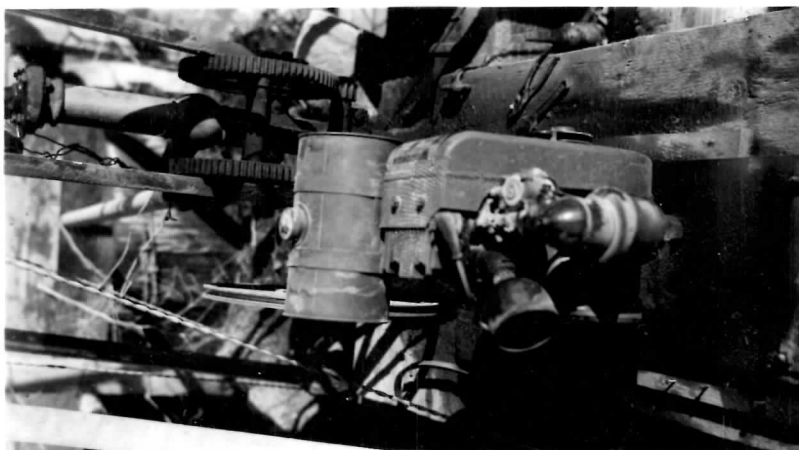
R-10 E-3, 10/5/44, Benton Lake: A 2" pipe carries the water from the pump. It was found that a more uniform level could be maintained in the tanks if the water from the pump was run into the second tank instead of the first.



R-10 E-4, 10/5/44, Benton Lake: 1½" galvanized pipes with rubber hose was used in connections between tanks. This rubber hose will be a guarantee against breaking out the ends of the tanks as it will allow for give or settlement of tanks.



R-10 E-5, 10/5/44, Benton Lake: The $1\frac{1}{2}$ " connections between tanks and $1\frac{1}{2}$ " overflow in the last tank are not sufficient to take care of all the water when pump is operating at maximum capacity. Note overflow in first tank.



R-10 E-6, 10/5/44, Benton Lake: A two to three horse power engine with pump jack is used to operate pump during periods of insufficient wind.



R-10 E-7, 10/5/44, Benton Lake: This reservoir which is about 6" deep, averages about 20' wide and is about $\frac{1}{4}$ mile long and was created after the installation of the new equipment. Besides making additional storage for stockwatering purposes it is a good small area for waterfowl.



R-11 E-1, 10/5/44, Benton Lake: The area within a radius of about $\frac{1}{4}$ mile around the watering unit is grazed and trampled very heavily. Several watering places are needed in an area as large as Benton Lake Refuge.



R-11 E-2, 10/5/44, Benton Lake: Outside the $\frac{1}{4}$ mile radius of the watering unit, grass conditions are somewhat better but even here for about another $\frac{1}{4}$ to $\frac{1}{2}$ mile there is much indication of over grazing.



R-11 E-3, 10/5/44, Benton Lake: Note the difference in density of forage along outer edge of refuge as compared with conditions close in around watering unit.



R-11 E-4, 10/5/44, Benton Lake: During the latter part of the grazing period when weather was not so hot, cattle grazed farther away from the watering unit. The above cattle are grazing along the eastern edge of the refuge. Note how slick and fat these animals are.



R-11 E-5, 10/5/44, Benton Lake: One stretch of the fire guard which surrounds this refuge. These were maintained twice during the summer months. Permittees performed the second maintenance operation at their own expense.